

10197 Learning Portuguese

Portuguese is one of the most beautiful languages in the whole world, but almost everyone who speaks Portuguese is either Brazilian or Portuguese. Since people all around the world (and not just Brazilians) are participating in this contest, we would like to help you to begin learning Portuguese with this problem. Well, the program you'll write will help you (if it's correct).

All you must do is to write a **conjugator**, that is, a program that conjugates verbs. In English there's not much to do when the verb is "regular" (it follows some model). But in Portuguese it's a bit different. But don't worry, we'll explain all you need to know in order to learn how to conjugate regular Portuguese verbs.

First of all, let's learn the pronouns, which you'll use to conjugate the verbs:

English	Portuguese
I	Eu
You	Tu
He/She	Ele/Ela
We	Nós
You	Vós
They	Eles/Elas

The "ó" character is represented by ASCII code 243. It doesn't matter how it looks on your screen, use ASCII character 243 when writing "nós" and "vós"! In Portuguese, all verbs in the infinitive mode have one of these suffixes: **ar** (first conjugation), **er** (second conjugation) and **ir** (third conjugation). For instance, "amar" (to love) is from the first conjugation, whereas "correr" (to run) is from the second, and "partir" (to go away) is from the third. So, you can recognize from which conjugation is the verb by its suffix (of course there are some exceptions to this rule, but we're not going to handle them).

We call "**root**" the verb in the infinitive mode without the suffix (so, for these three verbs we just saw, we have "am", "corr" and "part" as roots). We call the "**thematic vowel**" (**tv** for short) the vowel of the suffix (i.e. "a", "e" or "i").

To conjugate regular verbs, all you have to do is to find out from which conjugation is the verb and, then, follow the model for that conjugation. In this problem we are only interested in the "presente tense", so here are the models for all conjugations on the present tense:

Pronoun	1st Conjugation	2nd Conjugation	3rd Conjugation
Eu	root + o	root + o	root + o
Tu	root + tv + s	root + tv + s	root + es
Ele/Ela	root + tv	root + tv	root + e
Nós	root + tv + mos	root + tv + mos	root + tv + mos
Vós	root + tv + is	root + tv + is	root + tv + s
Eles/Elas	root + tv + m	root + tv + m	root + em

Let's see, as an example, the conjugation of the three verbs above:

Pronoun	amar	correr	partir
Eu	amo	corro	parto
Tu	amas	corres	partes
Ele/Ela	ama	corre	parte
Nós	amamos	corremos	partimos
Vós	amais	correis	partis
Eles/Elas	amam	correm	partem

So, your task is: given a verb in Portuguese (and its meaning in English), conjugate the verb.

Input

There will be two words per line, v_1 and v_2 . The first one (v_1) is the verb in Portuguese, and the second one (v_2) is its meaning in English. All words will be formed by just latin lowercase letters (i.e. all letters will lie in the range [a..z]). No word will have more than 30 characters. You must read until you reach the end of file.

Output

For each pair of words, the first line of output must be:

v_1 (to v_2)

Where v_1 stands for the verb in Portuguese and v_2 its meaning in English (as described above). After that, you must print 6 lines with the correct conjugation, assuming the verb will be regular. The first character of the pronoun must start at the first column of the line. The equivalent conjugation to that pronoun must begin at column 11 of the same line. The space between the pronoun and the conjugation must be filled with blanks. If the verb read lies in none of the conjugations given, instead of the conjugation, just print the line

Unknown conjugation

You must print a blank line between the output sets.

Sample Input

```
falar talk
compor compose
andar walk
```

Sample Output

```
falar (to talk)
eu         falo
tu         falas
ele/ela   fala
n s       falamos
v s       falais
eles/elas falam
```

```
compor (to compose)
Unknown conjugation
```

```
andar (to walk)
eu         ando
tu         andas
ele/ela   anda
n s       andamos
v s       andais
eles/elas andam
```